# DIAGNOSES OF SOME UNDESCRIBED WOOD RATS (GENUS NEOTOMA) IN THE NATIONAL MUSEUM.

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THE FOLLOWING diagnoses were drawn up in connection with a study of the Wood Rats of the United States, in the National Museum, which I have recently completed. It is my intention to publish further descriptions of these forms, together with notes on other species which inhabit the United States, in a subsequent paper.

## NEOTOMA SPLENDENS, new species.

Size of *N. fuscipes*; tail as long as the head and body. Ears large, moderately clothed with long hairs.

Upper surfaces tawny, shaded with black, especially along the spine. Sides clearer tawny-brown. Head more or less grayish. Throat, breast and space between the hind legs white, the hairs being of this color throughout. A line on the lower sides of the cheeks, the sides of the breast, and the whole belly more or less bright tawny-buff, which color is continued on the flanks. Tail unicolor, black throughout, as in N. fuscipes. Fore feet white; hind feet dusky to the toes. Ears dusky

Skull (No. 24231, U.S.N.M.), with the nasal processes of intermaxille not extending greatly beyond the nasals posteriorly (about 2 mm.). Incisive foramina long, reaching to the line of the anterior molar. Palate ending posteriorly in two small capsules, with an emargination between them. Anterior palatal spine straight. Interparietal narrowly pentagonal, without an angle behind.

Dimensions of type (No. 19693, U.S.N.M., male).\*--Total length, 438 mm.; tail, 215 mm.

Dimensions of skull (No. 24230, U.S.N.M.).—Total length, 47 mm.; basilar length (Hensel), 38; zygomatic breadth, 24.2; length of nasals, 17.6; length of incisive foramina, 10.

Type.—No. 19693, U.S.N.M., male, Marin County, Cal. Collected November 25, 1887.

\* Collector's measurements.

### NEOTOMA MACROTIS SIMPLEX, new subspecies.

Similar to *N. macrotis*, but all the under surfaces and the feet white, the hairs being of this color to the roots. Tail rather sharply bicolored. Ears very thinly clothed with whitish hairs.

Skull as in *N. macrotis*, but the extremity of the anterior palatal spine touches the vomer.

Dimensions of the type (No. 3651, U.S.N.M.).\*—Head and body, 213 mm.; tail vertebræ, 167; hind foot (without claw), 35; ear, from orifice, 27.

Dimensions of skull (No. 3598, U.S.N.M.).—Total length, 48 mm.; basilar length (Hensel), 38; zygomatic breadth, 24.3; length of nasals, 18.5; length of incisive foramina, 9.5.

Type.—No. 3651, U.S.N.M., Fort Tejon, Cal. Collected by J. Xantus.

#### NEOTOMA VENUSTA, new species.

Size moderate Ears large and thin. Tail as long as the head and body.

Upper surfaces mingled buff and pale gray. Sides clearer buff, sharply marked off from the color of the under surfaces, which together with the feet are pure white. Hairs white to the base on the throat, sides of cheeks, breast, inside of fore legs, inguinal region, and feet. A tuft of pure white hairs at the base of the outer margin of the ears. Ears thinly clothed with long, whitish hairs. Tail gray above, pure white below.

Skull thick and massive. Nasals shorter than the intermaxillæ and much contracted posteriorly. Interparietal large, with a convex posterior margin. Incisive foramina short and broad, reaching posteriorly about to the line of the molars. Tympanic bulke large. Foramen magnum low and wide. Posterior termination of palate concave.

Incisors very broad and convex. Molars long and broad.

Dimensions of the type (No.  $\frac{21696}{36400}$ , U.S.N.M.).†—Total length, 364 mm.; tail, 173; hind foot, 35.

Dimensions of the skull of type.—Total length, 43 mm.; basilar length (Hensel), 36; zygomatic breadth, 23.4; length of interparietal, 6.2; length of incisive foramina, 8.2; length of molars (alveolæ), 9.4; breadth of incisors, together, 4.0; breadth of foramen magnum, 7.5.

*Type.*—No.  $\frac{21696}{36400}$ , male, Carrizo Creek, California. Collected by **F**. Stephens.

#### NEOTOMA OCCIDENTALIS FUSCA, new subspecies.

Back blackish, sides tawny-gray, belly soiled white. Under side of neck tawny-gray. A small area of entirely white hairs between the fore legs. Upper portion of legs gray both above and below. Fore

<sup>\*</sup> From the dry skin.

feet white. Hind feet with the proximal half of the metatarsus, and also the base of the toes, dusky. Tail black above, buffy-gray below. Ears dusky.

(Skull wanting.)

Dimensions of the type (a dry skin, No. 3370, U.S.N.M.).—Head and body, 215 mm.; tail vertebræ, 180; hind foot (and elaw), 44.

Type.—No. 3370, U.S.N.M., Fort Umpqua, Oreg. Collected by E. P. Vollum.

Dr. Merriam has recently stated\* that the skulls of the bushy-tailed Wood Rats, which constitute the genus *Teonoma* of Gray, are without vacuities at the sides of the presphenoid, and regards this as a character of importance. The bushy tailed species of the Rocky Mountains (*N. cinerea*), however, has large vacuities. They are absent only in *N. occidentalis* and its varieties. Hence this character is not correlated with the condition of the tail. There is, furthermore, much variation in the size of the vacuities in the scaly-tailed species, those of *N. floridana* and varieties being very small.

A Neotoma from Fort Liard, British America, has the skull similar to N. occidentalis, and Richardson's N. drummondi is perhaps a variety of this species, with no close relationship to N. cinerea of the Rocky Mountains of the United States.

<sup>\*</sup> Proc. Biol. Soc. Washington, VIII, p. 112, 1893.